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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------------------------------|----------------------|------------------------|------------------|
| 10/808,497 | 03/25/2004 | Sung-ho Kim | SEC.1147 | 5716 |
| 20987 | 7590 08/09/2005 | | EXAMINER | |
| VOLENTINE FRANCOS, & WHITT PLLC ONE FREEDOM SQUARE | | | NGUYEN, THINH T | |
| | EDOM SQUARE EDOM DRIVE SUITE 126 | 50 | ART UNIT | PAPER NUMBER |
| RESTON, | VA 20190 | | 2818 | |
| | | | DATE MAILED: 08/09/200 | 5 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|---|--|----------------------|--|--|--|
| | 10/808,497 | KIM ET AL. | (M) | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Thinh T. Nguyen | 2818 | | | | |
| The MAILING DATE of this communication ap Period for Reply | pears on the cover sheet | with the correspondence ac | Idress | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a relevance if NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 136(a). In no event, however, may by within the statutory minimum of the lambda will expire SIX (6) Mile, cause the application to become | a reply be timely filed hirty (30) days will be considered time ONTHS from the mailing date of this of ABANDONED (35 U.S.C. § 133). | ly. ommunication. | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on 25 i | <u> March 2004</u> . | | | | | |
| 2a) This action is FINAL . 2b) ⊠ Thi | s action is non-final. | | | | | |
| Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | |
| 4) Claim(s) 1-37 is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) Claim(s) is/are allowed. 6) Claim(s) is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) 1-37 are subject to restriction and/or | awn from consideration. | | | | | |
| Application Papers | | | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | | |
| 10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| Attachment(s) | | • | | | | |
| 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) | | | | | | |
| Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date | | o(s)/Mail Date If Informal Patent Application (PT | O-152) | | | |

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DETAILED ACTION

Election/Restriction

- Claims 1-37 are pending in this application.
- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - **Group I.** Claims 1-28 drawn to a non-volatile semiconductor memory device, Classified in class 257, subclass 315
 - **Group II.** Claim 29-37 drawn to a memory apparatus classified in class 365 subclass 185.05.
- 2. In the case Applicants elect group I, these invention are further required to be restricted under 35 U.S.C. 121 as the following:

The claims are directed to the following patently distinct species of the claimed invention:

Species I. Claims 1-14 as best as can be understood is described in claim 1 is directed to a non-volatile semiconductor with byte select transistor in the active region.

Species II. Claims 15-28 as best as can be understood is described in claim 15 is directed to a non-volatile semiconductor with byte operational block including a byte select transistor perpendicular to the direction in which the 1 byte memory transistor are arranged.

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3. The inventions are distinct, each from the other because of the following reasons:

Each of the inventions, Group I and Group II, recites limitations not recited in any of the other invention. The differing limitations make the inventions group I and group II patentably distinct from one another, i.e. a reference that anticipates or makes obvious one of the inventions group I and group II would not, by itself, anticipate or make obvious the other invention.

Therefore, restriction for examination purposes as indicated is proper.

- 4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
- 5. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
- 6. for the species restriction requirement, Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable

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thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

- 7. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
- 8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

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CONCLUSION

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thinh T Nguyen whose telephone number is 571-272-1790. The examiner can normally be reached on 9.00 AM 6.00 PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID NELMS can be reached on (571) 272-1787. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9319 for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval [PAIR] system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thelegran

Thinh T Nguyen

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